

# EL 63 FB / GB / PB / PBF / PC / PCF BLIND / THROUGH HOLLOW SHAFT INCREMENTAL ENCODER

#### MAIN FEATURES

Hollow shaft encoder series for small AC motors, thanks to compact size (only 35mm height).

- · 3 channel encoder (A / B / Z) up to 2500 ppr
- Power supply up to +28 V DC with several electrical interfaces available
- · Up to 300 kHz output frequency
- · Cable output, connector available on cable end
- Through or blind hollow shaft diameter up to 15 mm
- · Shaft fixing by collar clamping







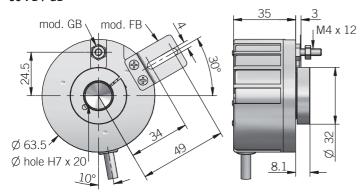


ORDERING CODE	EL	63GB	500	S	5/28	P	8	X	3	PR	. XXX
ONDERING CODE	SERIES incremental encoder EL  blind hollow shaft with torque stop blind hollow shaft with torque through hollow shaft with torque through hollow shaft with torque stop s rear fixing shaft with torque rear fixing shaft with torque stop s	MODEL slot 63FB pin 63PB pin 63PB pin 63PC lot 63PC RES ppr from the available	SOLUTION 1 to 2500 pulses list ZEI without zer with zer th L electrica	RO PULSE To pulse S To pulse S POWEF al interface) 5 28 V ELEC N	R SUPPLY 5 V DC 5 DC 5/28 TRICAL IN PN open c pu lin output R	ITERFACE ollector C ish-pull P e driver L S-422 RS BORE I	DIAMETER mm 8 mm 10 mm 12 mm 14 mm 15 ENCLOSUR MA	E RATING IP 54 X IX ROTATIO	<b>N SPEED</b> 00 rpm 3 0 <b>UTF</b> lard length	PUT TYPE 1,5 m) PR	
											VARIANT

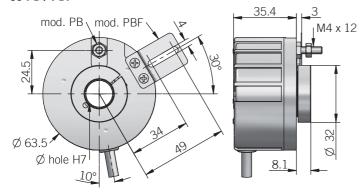


custom version XXX

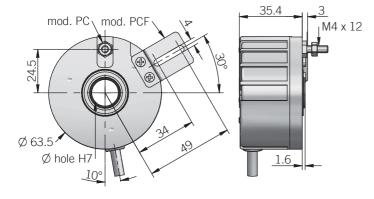
#### 63 FB / GB



### **63 PB / PBF**



### 63 PC / PCF



torque pin is included in model GB / PB / PC, for model FB / PBF / PCF please refer to Accessories

dimensions in mm

ELECTRICAL SPECIFICATIONS			
Resolution	from 1 to 2500 ppr		
Power supply <sup>1</sup>	$5 = 4,5 \dots 5,5 \text{ V DC}$ $5/28 = 4,5 \dots 30 \text{ V DC}$ (reverse polarity protection)		
Power draw without load	800 mW max		
Max load current	C/P = 50  mA/channel L/RS = 20  mA/channel		
Electrical interface <sup>2</sup>	NPN open collector (AEIC-7273, pull-up max +30 V DC) push-pull / line driver HTL (AEIC-7272) line driver RS-422 (AELT-5000 or equivalent)		
Max output frequency	300 kHz		
Counting direction	A leads B clockwise (shaft view)		
Electromagnetic compatibility	according to 2014/30/EU directive		
RoHS	according to 2015/863/EU directive		
UL / CSA	certificate n. E212495		

MECHANICAL SPECIFICATIONS				
Bore diameter	ø8/10/12/14/15 mm			
Enclosure rating	IP 54 (IEC 60529)			
Max rotation speed	3000 rpm			
Shock	50 G, 11 ms (IEC 60068-2-27)			
Vibration	10 G, 10 2000 Hz (IEC 60068-2-6)			
Moment of inertia	4 x 10 <sup>-6</sup> kgm <sup>2</sup> (95 x 10 <sup>-6</sup> lbft <sup>2</sup> )			
Starting torque (at +20°C / +68°F)	< 0,04 Nm (5,66 Ozin)			
Bearing stage material	EN-AW 2011 aluminum			
Shaft material	1.4305 / AISI 303 stainless steel			
Housing material	PA 66 glass fiber reinforced			
Bearings	n.2 ball bearings			
Bearings life	10 <sup>9</sup> revolutions			
Operating temperature <sup>3, 4</sup>	-10° +60 °C (+14° +140°F)			
Storage temperature <sup>4</sup>	-25° +70 °C (-13° +158°F)			
Weight	350 g (12,35 oz)			

<sup>&</sup>lt;sup>1</sup> as measured at the transducer without cable influences

<sup>&</sup>lt;sup>4</sup> condensation not allowed

Function	Cable C / P	Cable L/RS
+V DC	red	red
0 V	black	black
A+	green	green
A-	/	brown or grey
B+	yellow	yellow
B-	/	orange
Z+	blue	blue
Z-	/	white

## **RESOLUTIONS**

1 - 2 - 5 - **20** - 25 - **32** - 50 - 60 - 100 - 128 - **200** - 250 - 256 - **360** - 400 - 500 - 512 - 600 - 720 - 1000 - **1024** - 1440 - 1800 - **2000** - 2048 - 2500

shield

please directly contact our offices for other pulses, preferred resolutions in bold





shield

<sup>&</sup>lt;sup>2</sup> for further details refer to OUTPUT LEVELS on TECHNICAL BASICS section

<sup>&</sup>lt;sup>3</sup> measured on the transducer flange